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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/878,401	06/12/2001	Jae Yong Park	2658-0268P	2192

2292 7590 03/24/2003

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EXAMINER

NGUYEN, JENNIFER T

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 03/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/878,401

Applicant(s)

PARK, JAE YONG

Examiner

Jennifer T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ouchi et al. (U.S. Patent No. 6,320,691).

Regarding claims 1 and 8, referring to Figs. 9 and 10, Ouchi teaches a display comprising: an panel having a display area and a non-display area; driving circuit boards (104) for applying driving signals to a gate line and a data line provided at the panel; and tape carrier packages (103) connecting the driving circuit boards (104) and the panel in a planar state wherein the tape carrier packages (103) and the driving circuit boards (104) are disposed in a common plane (col. 10, lines 26-55).

Ouchi differs from claims 1 and 8 in that he does not specifically teach the display panel is electro-luminescence display panel. However, it would have been obvious to obtain display panel is electro-luminescence display panel in order to provide a simple, inexpensive device with better display image.

Regarding claim 2, Ouchi teaches the driving circuit boards (104) include: a gate driving circuit (at horizontal side of the panel) for applying driving signals to the gate lines; and a data driving circuit (at vertical side of the panel) for applying driving signals to the data lines.

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Regarding claims 3-5, Ouchi teaches the driving circuit boards (104) include a plurality of output pads (not show) electrically connected to the tape carrier packages (103) and panel includes a plurality of input pads (106) that are provided at the nondisplay area and electrically connected to the tape carrier packages (103) (col. 10, lines 27-55).

Regarding claim 6, Ouchi teaches the tape carrier packages include: a first group (on left side of the panel) of tape carrier packages (103) arranged between the panel and the gate driving circuit and a second group (on top side of the panel) of tape carrier packages (103) arranged between the panel and the data driving circuit (Fig. 10).

Regarding claim 7, Ouchi teaches the tape carrier packages (103) has a first side for connecting the driving circuit boards (104) to the panel and a second side for holding a computer chip (col. 5, lines 25-35).

Regarding claims 9 and 10, Ouchi teaches a substantial portion of each of said tape carrier packages (103) having a first portion (109) disposed in a common plane with said driving circuit boards (104) and connected to the panel (102) and a second portion (106) disposed in a contiguous plane to the common plane of said panel (102) and said first portion (col. 10, lines 42-55).

3. The prior made of record and not relied upon is considered to pertinent the applicant's disclosure:

Cha et al. (U.S. Patent No. 6,519,202) teaches LCD module, using a flexible printed circuit board with enhanced thermocompression characteristics.

Muramatsu (U.S. Patent No. 5,893,623) teaches structure and method for mounting semiconductor devices.

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Stoller (U.S. Patent No. 5,754,171) teaches display device having integrated circuit chips thereon.

Asada et al. (U.S. Patent No. 5,963,287) teaches display unit with flexible printed circuit board.

Takahashi et al. (U.S. Patent No. 5,936,850) teaches circuit board connection structure and method, and LCD including the connection structure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Jennifer T. Nguyen** whose telephone number is **703-305-3225**.

The examiner can normally be reached on Mon-Fri from 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Richard A Hjerpe** can be reach at **703-305-4709**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, DC. 20231

Or faxed to: 703-872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding

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should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

Jennifer T. Nguyen
Patent Examiner
Art Unit 2674



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600